

Remarks

Reconsideration and reexamination of the above-identified patent application, as amended, are respectfully requested. Claims 1-7 and 9-10 are pending in this application upon entry of this Amendment. In this Amendment, the Applicant has amended claims 1 and 9; and has cancelled claims 8 and 13-17. No claims have been added in this Amendment. Of the pending claims, claim 1 is the only independent claim.

Claim Rejections - 35 U.S.C. § 103

In the final Office Action mailed April 28, 2004, the Examiner rejected claims 1-3, 10, and 13-15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,608,447 issued to Farry et al. ("Farry") in view of U.S. Patent No. 5,559,955 issued to Dev et al. ("Dev") and U.S. Patent No. 5,513,171 issued to Ludwiczak ("Ludwiczak").

The Applicant has cancelled claim 13-15 and has amended independent claim 1 to include the limitations of its cancelled dependent claim 8. As indicated below, the Examiner rejected claim 8 under 35 U.S.C. § 103(a) in view of Farry, Dev, Ludwiczak, and additional prior art references. Accordingly, the Applicant believes that amended independent claim 1 is patentable under 35 U.S.C. § 103(a) over Farry, Dev, and Ludwiczak. Claims 2-3 and 10 depend from amended independent claim 1 and include the limitations therein. Therefore, the Applicant respectfully requests reconsideration and withdraw of the rejection to claims 1-3 and 10 under 35 U.S.C. § 103(a) over Farry, Dev, and Ludwiczak.

The Examiner rejected claims 8-9 under 35 U.S.C. § 103(a) as being unpatentable over Farry, Dev, and Ludwiczak in view of U.S. Patent No. 5,519,830 issued to Opoczynski ("Opoczynski") and in view of U.S. Patent No. 6,137, 793 issued to Gorman et al. ("Gorman"). As indicated above, the Applicant has amended independent claim 1 to include the limitations of its cancelled dependent claim 8. The Applicant respectfully traverses the rejection with respect to claim 8 and believes that the claimed invention as recited in

amended independent claim 1 is patentable under 35 U.S.C. § 103(a) over Farry, Dev, Ludwiczak, Opoczynski, and Gorman.

1. The Claimed Invention

Amended independent claim 1 provides a hybrid fiber coax (HFC) network which includes network elements operable for communicating telephony, Internet Protocol (IP) data, and video signals with customer-premises equipment (CPE) of subscribers via a combiner and splitter network. The CPE of a subscriber includes a network interface unit (NIU), a cable modem, and a set-top-box (STB). The network elements include host digital terminals (HDTs) for communicating telephony signals with the NIUs of the subscribers via the combiner and splitter network, cable modem termination systems (CMTSs) for communicating IP data signals with the cable modems of the subscribers via the combiner and splitter network, and a set of video equipment for communicating video signals with the STBs of the subscribers via the combiner and splitter network. The combiner and splitter network combines the telephony, the IP data, and the video signals communicated from the network elements for the CPE of a subscriber into a combined subscriber signal, and then provides the combined subscriber signal to the CPE of the subscriber. The NIU, the cable modem, and the STB of the subscriber respectively extract the telephony, the IP data, and the video signals from the combined subscriber signal.

The HFC network further includes a service, design, and inventory (SDI) database operable for storing data indicative of the configuration of the network elements and the CPE of the subscribers, for storing data indicative of assigned capacity of the network elements, and for storing data indicative of the physical and logical connections between the network elements themselves and with the CPE of the subscribers.

The HFC network further includes an online provisioning application link (OPAL) operable with the SDI database to access the stored data for automatically, without manual intervention, provisioning selected ones of the network elements with the CPE of a

given subscriber based on the configuration of the network elements and the CPE of the given subscriber and based on the assigned capacity of the network elements such that the provisioned network elements and the CPE of the given subscriber are physically and logically connected in order to enable communication of telephony, IP data, and video signals between the network elements and the CPE of the given subscriber via the combiner and splitter network.

The SDI database is operable with the OPAL in order to automatically update, without manual intervention, the stored data indicative of the configuration of the network elements and the CPE of the subscribers, the assigned capacity of the network elements, and the physical and logical connections between the network elements themselves and with the CPE of the subscribers to account for the automated provisioning of the provisioned network elements with the CPE of the given subscriber.

2. The Claimed Invention Compared to the Cited Prior Art

The claimed invention as recited in amended independent claim 1 generally differs from any combination of Farry, Dev, Ludwiczak, Opoczynski, and Gorman in that the claimed invention is directed to an HFC network having network elements for communicating combined signals containing telephony, IP data, and video signals to the CPE of subscribers. To this end, the network elements include HDTs, cable modem termination systems CMTS, and a set of video equipment for communicating the telephony, IP data, and video signals to the CPE of the subscribers via a combiner and splitter network. The HFC network includes the OPAL which automatically provisions selected ones of the network elements (which include HDTs, CMTSs, and a set of video equipment) with the CPE of a given subscriber such that the provisioned network elements and the CPE of the given subscriber are physically and logically connected to enable communication of the telephony, IP data, and video signals between the network elements and the CPE of the given subscriber via the combiner and splitter network.

The Applicant believes that the combination of Farry, Dev, Ludwiczak, Opoczynski, and Gorman does not teach or suggest the claimed feature of automatically provisioning selected ones of the network elements (which include HDTs, CMTSs, and a set of video equipment) with the CPE of a given subscriber based on the configuration of the network elements and the CPE of the given subscriber and based on the assigned capacity of the network elements such that the provisioned network elements and the CPE of the given subscriber are physically and logically connected to enable communication of the telephony, IP data, and video signals between the network elements and the CPE of the given subscriber via the combiner and splitter network.

Therefore, the Applicant believes that amended independent claim 1 is patentable under 35 U.S.C. § 103(a) over Farry, Dev, Ludwiczak, Opoczynski, and Gorman. Claims 2-3 and 10 depend from amended independent claim 1 and include the limitations therein. Thus, the Applicant respectfully requests reconsideration and withdraw of the rejection to claims 1-3 and 10 under 35 U.S.C. § 103(a).

The Examiner rejected dependent claims 4-7 and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over Farry, Dev, and Ludwiczak in further view of U.S. Patent No. 4,972,453 issued to Daniel, III et al. ("Daniel"). Claims 16-17 have been cancelled. Claims 4-7 depend from independent claim 1 and include the limitations therein. Thus, claims 4-7 are believed to be patentable under 35 U.S.C. § 103(a) in view of Farry, Dev, Ludwiczak, and Daniel and the Applicant respectfully requests reconsideration and withdraw of the rejection to claims 4-7 under 35 U.S.C. § 103(a).

CONCLUSION

In summary, claims 1-7 and 9-10, as amended, meet the substantive requirements for patentability. The case is in appropriate condition for allowance.. Accordingly, such action is respectfully requested.

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If a telephone or video conference would expedite allowance or resolve any further questions, such a conference is invited at the convenience of the Examiner.

Respectfully submitted,

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